REMARKS

The Examiner rejected Claims 1-2, 5-7, 15-18 and 20 under 35 U.S.C. 102(b) as being anticipated by Kinrot, *et al* (hereafter "Kinrot") (US 6,246,482). Applicant traverses this rejection.

The Examiner has the burden of showing by reference to the cited art each claim limitation in the reference. Anticipation under 35 U.S.C. 102 requires that each element of the claim in issue be found either expressly or inherently in a single prior art reference. *In re King*, 231 USPQ 136, 138 (Fed. Cir. 1986); *Kalman v. Kimberly-Clark Corp.*, 218 USPQ 781, 789 (Fed. Cir. 1983). The mere fact that a certain thing may result from a given set of circumstances is not sufficient to sustain a rejection for anticipation. *Ex parte Skinner*, 2 USPQ2d 1788, 1789 (BdPatApp&Int 1986). "When the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference" (*In re* Rijckaert, 28 USPQ2d, 1955, 1957). Under the doctrine of inherency, if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element "is necessarily present in the thing described in the reference." Cont'l Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749(Fed. Cir. 1991). "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599(Fed. Cir. 2002) (quoting In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)).

With reference to Claim 1, the Examiner looks to Claim 6 of Kinrot and identifies the optical navigation device consisting of light source 124, lens 123, and imaging array 122. It should be noted that Kinrot teaches that this device is a reading head in which the light source 124 is the same as that utilized in conventional light pens(col. 26, lines 20-44). The Examiner has not pointed to any teaching or definition in the art of a light pen as a device that always includes a coherent light source. Furthermore, Kinrot is silent as to the definition of "light pen" as defined therein. Furthermore, U.S. Patent 6,377,240 teaches a light pen having an LED included therein (See Figure 10 and the discussion thereof). Hence, it not necessarily true that a light pen includes a laser. Accordingly, Claim 1, and the claims dependent therefrom are not anticipated by Kinrot.

With respect to Claim 15, the Examiner looks to the embodiment in Figure 1 as teaching that the angle of reflection is substantially equal to the angle of illumination. However, as noted above, the device shown in Figure 1 is the device that is in element 82 that measures the speed of motion, not the conventional scanning system identified by the Examiner. Accordingly, the embodiment identified by the Examiner fails to satisfy two elements of Claim 15. Hence, Claim 15, and the claims dependent therefrom, are not anticipated by Kinrot.

As for Claims 2 and 16, the Examiner asserts that lasers are used in conventional light pens, and hence, Kinrot inherently teaches that the light source is a laser. As noted above, the Examiner has not provided any reference to confirm his view that conventional light pens utilize lasers. In fact, the Examiner has not pointed to any definition as to what someone of ordinary skill in the art would understand the term light pen as used in Kinrot to mean. Hence, there are additional grounds for allowing Claims 2 and 16, and the claims dependent therefrom.

As for Claim 5, the Examiner stated that Kinrot discloses lens 123. The claim requires a collimation lens to improve the light collection efficiency. The lens taught in Kinrot is an imaging lens that forms the image of the surface on the photo-detector array. See element 301 in Figure 3B of the present application and the discussion thereof. There is no such lens in the embodiment shown in Figure 6 of Kinrot. Furthermore, the Examiner identifies the same lens as the imaging lens recited in Claim 6. Hence, there are additional grounds for allowing Claim 5.

As for Claims 7 and 20, the Examiner stated that because the surface of Kinrot is not totally smooth, it does not lie entirely in any plane, and hence, the additional limitations of these claims are satisfied. The above amendments to these claim make it clear that the surface lies outside the imaging plane. The Examiner has not pointed to any such teaching in Kinrot. Hence, there are additional grounds for allowing Claims 7 and 20.

As for Claim 17, the Examiner stated that Kinrot discloses CCD array 122. The claim requires that the specularly reflected portion of the coherent light beam is received by a detector array, not merely that there is a detector array. The Examiner has not pointed to any such teaching in Kinrot, and hence, there are additional grounds for allowing Claim 17.

As for Claim 18, the Examiner stated that the array of Kinrot will inherently generate a signal in response to the diffraction pattern of the light reflected off the surface, because the surface, due to it not being perfectly smooth, will inherently generate some diffuse, scattered reflections off the surface, leading to the generation and subsequent detection of a diffraction pattern. Since the light source identified by the Examiner is not coherent, there can be no such diffraction pattern. Hence, there are additional grounds for allowing Claim 18.

The Examiner rejected Claim 3 under 35 U.S.C. 103(a) as being unpatentable over Kinrot as applied to Claim 1 above, and further in view of Liess, *et al* (hereafter "Liess") (US 6,707,027). Applicant traverses this rejection and repeats the arguments made above with respect to the missing teachings in Kinrot with respect to Claims 1 and 2 from which Claim 3 depends. Liess does not provide the missing teachings.

The Examiner admits that Kinrot does not teach that light source 122 is a VCSEL. The Examiner looks to Liess for the missing teaching. The Examiner also maintains that the device shown in Figure 18 of Liess is a "light pen". First, the term "light pen" does not appear in Liess. The device shown in Figure 18 is referred to as a virtual pen. While the device includes laser diodes, the reference does not provide any evidence as to what the term "light pen" included in 1999 when the Kinrot reference was filed, since the Liess reference was filed in 2001. Finally, the existence of a pen device having a laser light source does not imply that all conventional light pens have laser light sources, and hence, the reference does not prove that Kinrot inherently teaches that light source 124 is a coherent light source.

The Examiner rejected Claim 4 under 35 U.S.C. 103(a) as being unpatentable over Kinrot as applied to Claim 1 above, and further in view of Nahum, *et al* (hereafter "Nahum") (US 6,642,506). Applicant traverses this rejection and repeats the arguments made above with reference to the missing teachings in Kinrot with respect to the limitations of Claim 1 from which Claim 4 depends. Nahum does not provide the missing teachings.

The Examiner provisionally rejected Claims 8-14 on the ground of nonstatuatory obviousness-type double patenting as being unpatentable over Claims 11-15 of co-pending application no. 10/630,169. Applicant has included herewith a terminal disclaimer.

The Examiner indicated that Claim 19 would be allowable if rewritten in independent form. The above amendments place Claim 19 in independent form.

The Examiner also indicated that Claims 8-14 would be allowable if the double patenting rejection is overcome. Applicant submits that the enclosed terminal disclaimer overcomes this rejection.

I hereby certify that this paper is being sent by FAX to 571-273-8300.

Respectfully Submitted,

Calvin B. Ward
Registration No. 30,896
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Avago Technologies, LTD.
P.O. Box 1920
Denver, CO 80201-1920
Telephone (925) 855-0413
Telefax (925) 855-9214